

# Developments for the NaturalGas Distribution Channel

Presented by:

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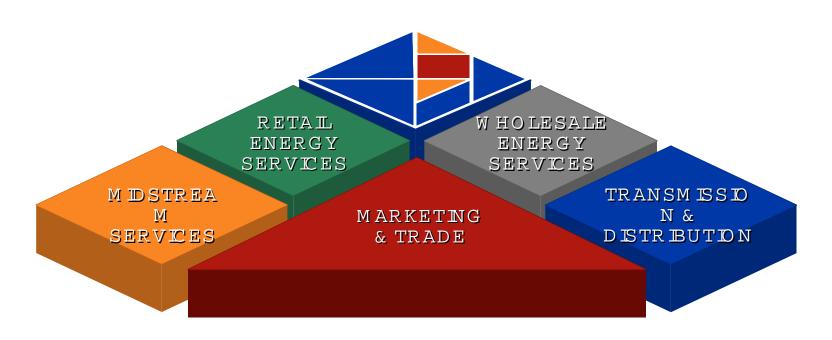
#### **AGENDA**

- Dynegy Overview
- Changes in Natural Gas Market Fundamentals
- Evolution of the Natural Gas Distribution Channel
- Summary



#### **DYNEGY'S GLOBAL REACH**

#### A GLOBAL PROVIDER OF ENERGY DELIVERY SERVICES



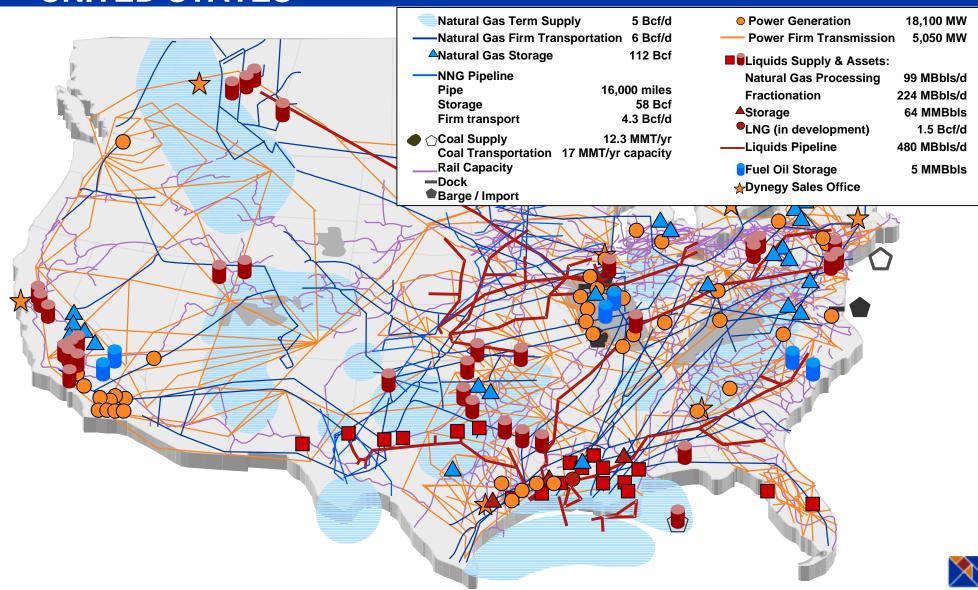
- \$42 Billion Revenues
- \$26 Billion Assets\*
- •6700+ Employees

- 18,100 MW Generation Control
- 12.6 Bcf/d Natural Gas Sales
- 317 MM MWh Total Power Sales

- 43 MM Tons Coal Sales
- 557 MBbls/d Liquids Sales



#### DYNEGY ENERGY NETWORK-UNITED STATES



\* March 1, 2002

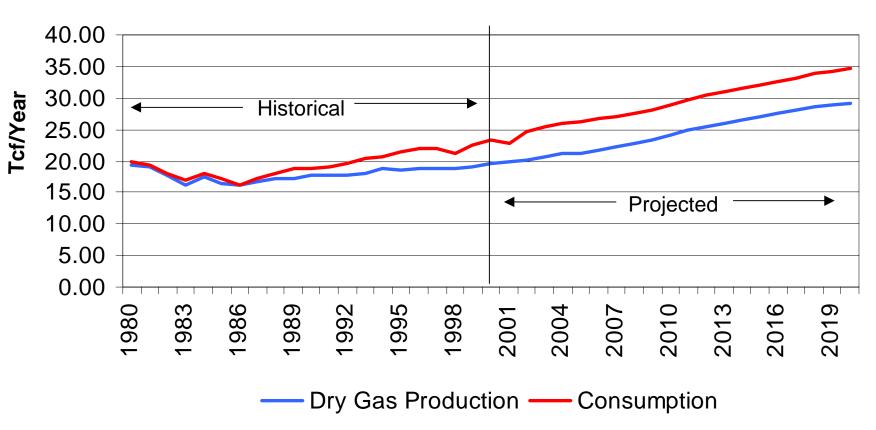
## FUNDAMENTAL CHANGES IN THE SUPPLY/DEMAND OF NATURAL GAS

- Widening Gap between Domestic Supply and Demand
- Increase in Natural Gas Demand
- Inability for Domestic Resources to Quickly Respond to Market Signals
- Growing Reliance Upon New Frontier Gas
- Increased Transparency of Market Signals



#### **U.S. SUPPLY/DEMAND BALANCE**

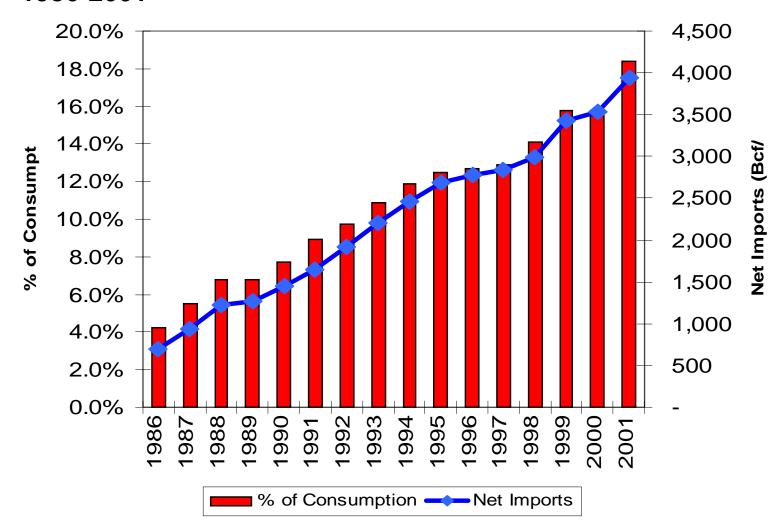
U.S. Natural Gas Consumption and Production, 1980-2020





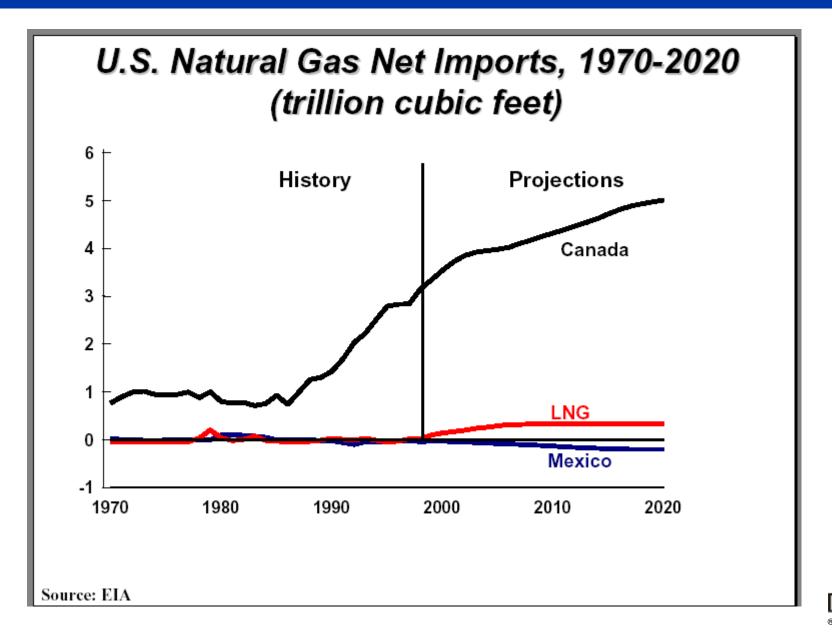
#### **GROWING RELIANCE UPON IMPORTS TO MEET DEMAND**

## U.S. Natural Gas Imports as a % of Total Consumption 1986-2001





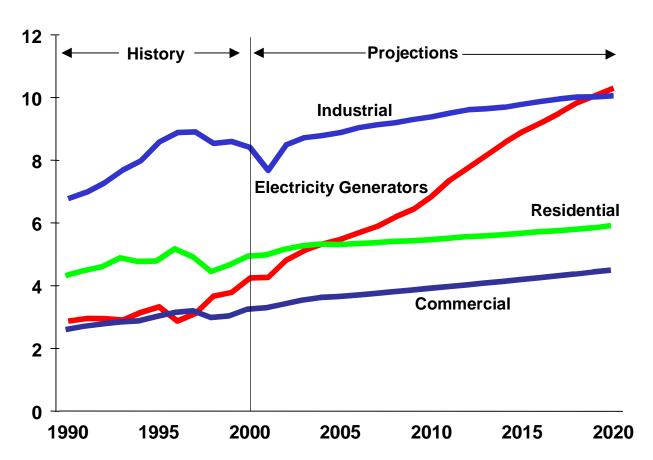
#### **GROWING RELIANCE UPON IMPORTS TO MEET DEMAND**





#### **U.S. NATURAL GAS DEMAND**

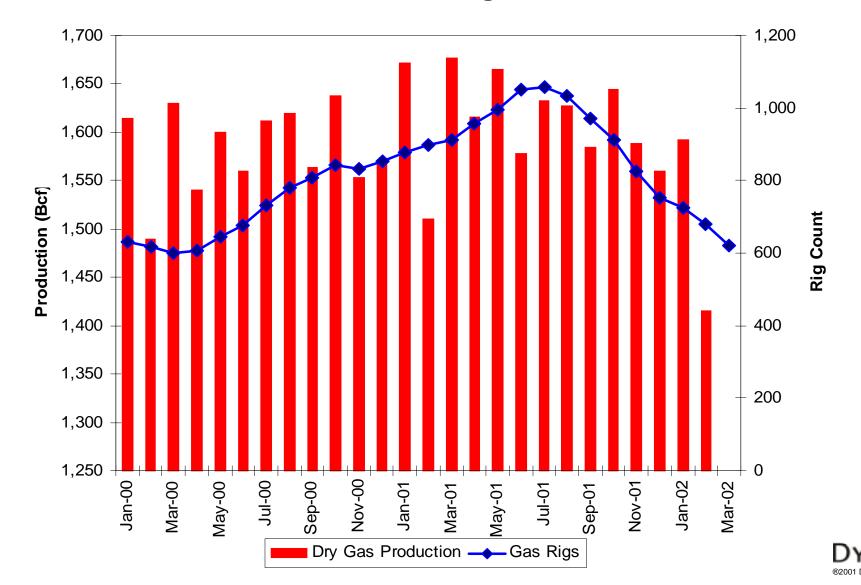
U.S. Natural Gas Demand, Forecasted Growth (Tcf/Year)



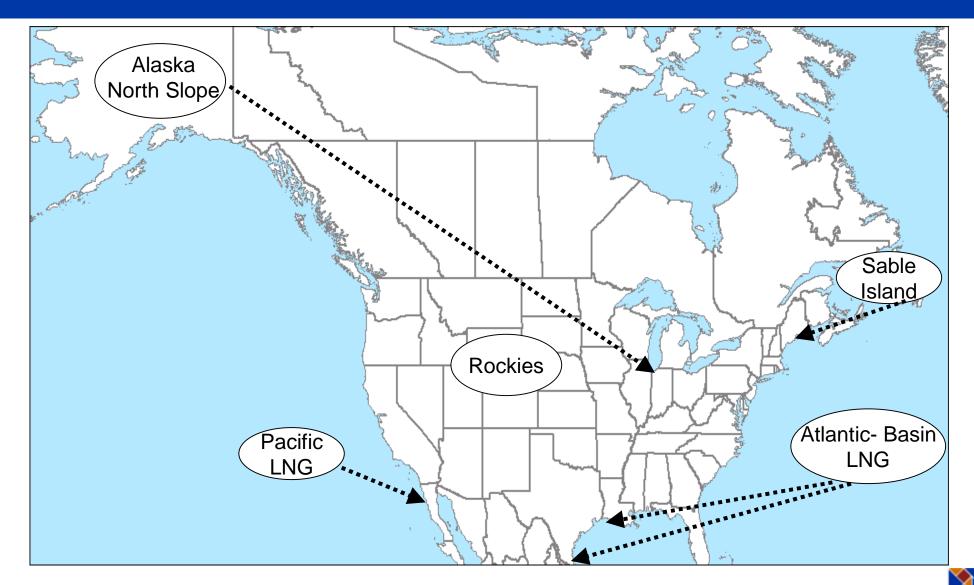


#### **LIMITATIONS ON DOMESTIC PRODUCTION CAPABILITY**

#### **U.S. Natural Gas Production vs. Rig Count**

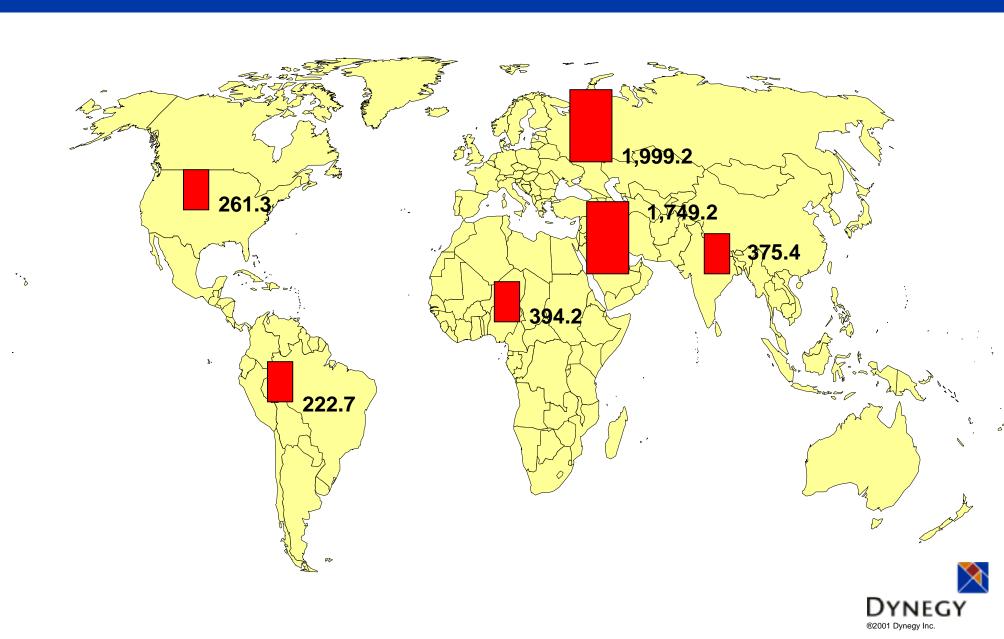


#### **U.S. FRONTIER GAS**

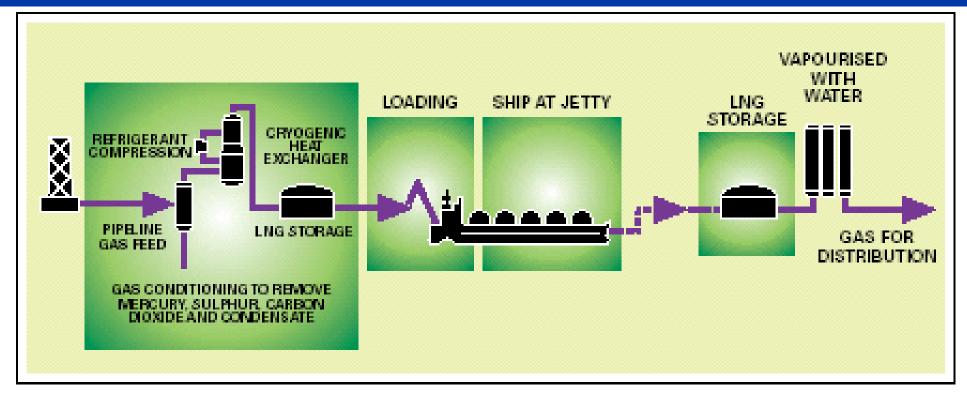




#### **GLOBAL DISTRIBUTION OF GAS RESERVES (TCF)**



## TECHNOLOGY HAS ENABLED PRICE-COMPETITIVENESS FOR LNG VALUE CHAIN



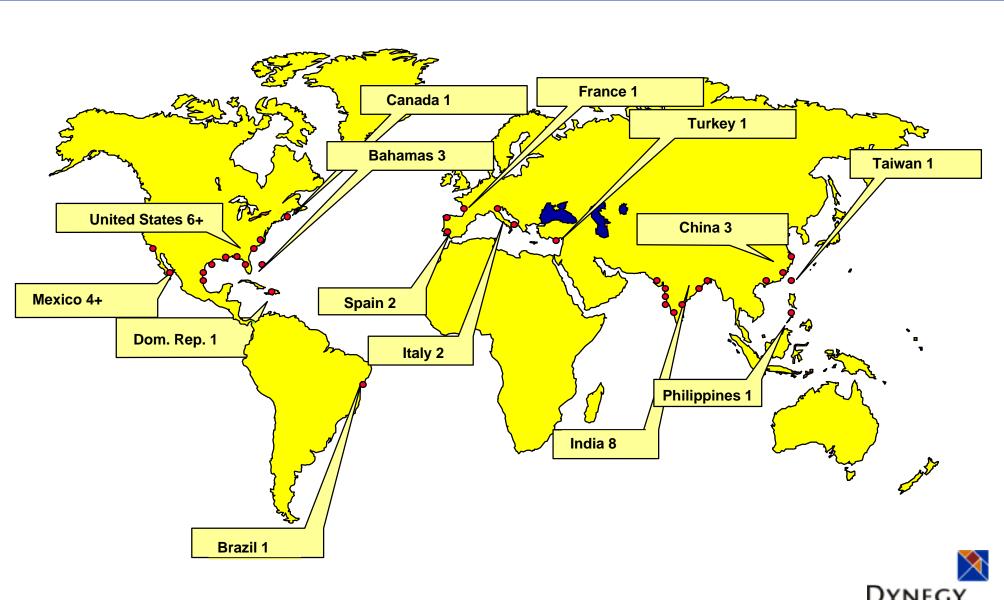
#### TYPICAL INVESTMENTS (IN MILLIONS)

Receiving TOTAL
Gas Producer Liquefaction Transportation Terminal COSTS

\$750 - 1,000 \$1,000-1,500 \$500 - 1,500 \$375 - 750 = \$2,625- 4,750



#### **LNG IMPORT TERMINALS- 35+ PROPOSED PROJECTS**



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#### **VOLATILITY WILL BE A CONTINUING MARKET FACTOR**

### Weekly Average Price of the Front NYMEX Natural Gas Contract





#### SUMMARY OF NATURAL GAS FUNDAMENTALS

- Demonstrated Ability to Grow Demand
- Limited Domestic Supply
- Growing Reliance on Imports
- International Competition for New Natural Gas Supply
- Continued Market Volatility
- Market Constraints Encourage Technological Innovations

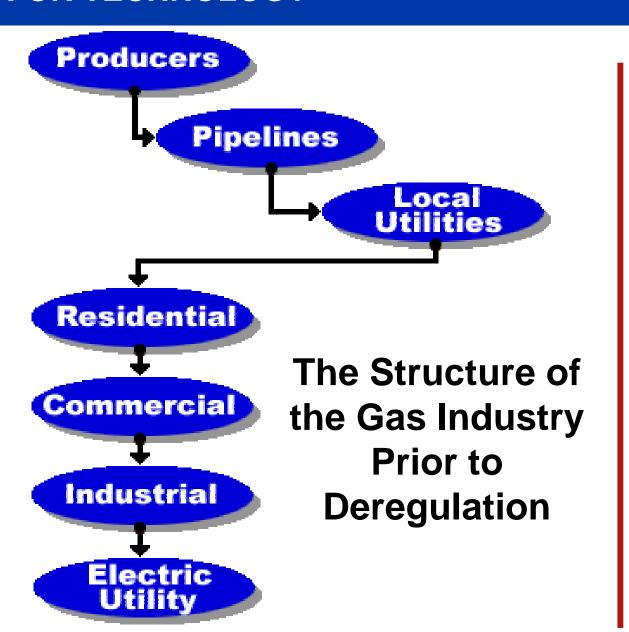


#### **EVOLUTION OF THE NATURAL GAS DISTRIUBTION CHANNEL**

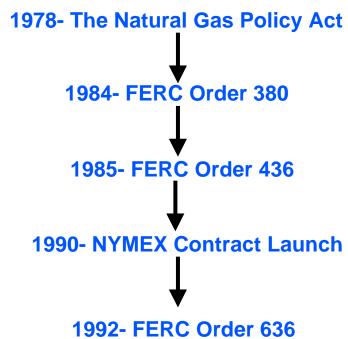
- Regulatory Changes
- Increased Transparency of Market Signals
- Product Evolution
- Risk Management Response



## DEREGULATION CREATED OPPORTUNITIES FOR TECHNOLOGY



# The Natural Gas Industry Timeline





#### **INCREASED TRANSPARENCY OF MARKET SIGNALS**

- NYMEX Launch of a Natural Gas Futures Contract
- Development of the Fixed Price OTC Market
- Formation of Online Trading Platforms



#### **DEVELOPMENT OF TRANSACTIONAL PLATFORMS**

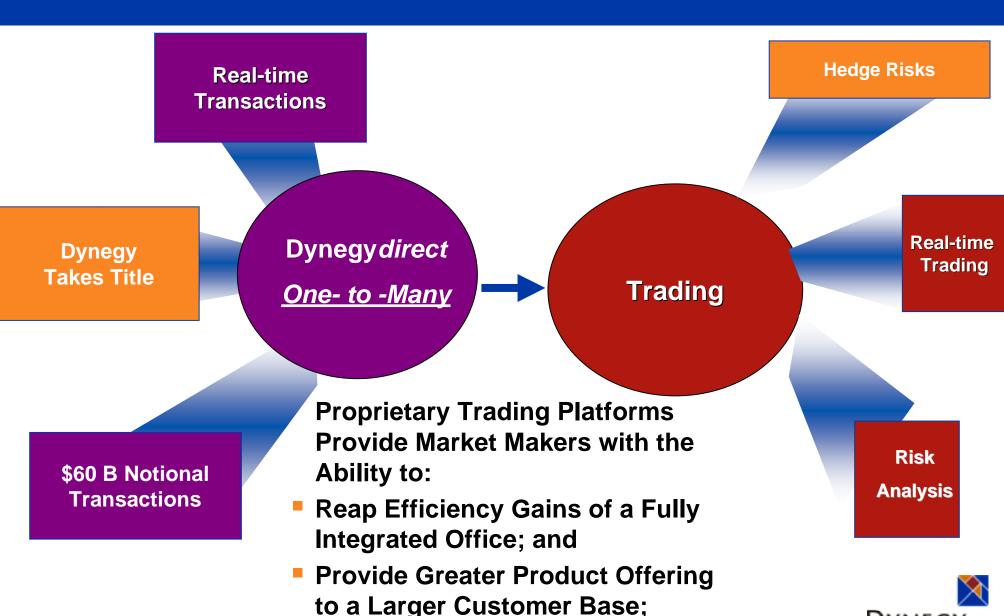
Emergence of Online Energy Trading Platforms (including Many to Many platforms) Allows for:

- Greater Liquidity;
- Improved Price Transparency;
- Facilitation of Real-time Trading; and
- Efficiency Gains of Bringing Buyers and Sellers Together.

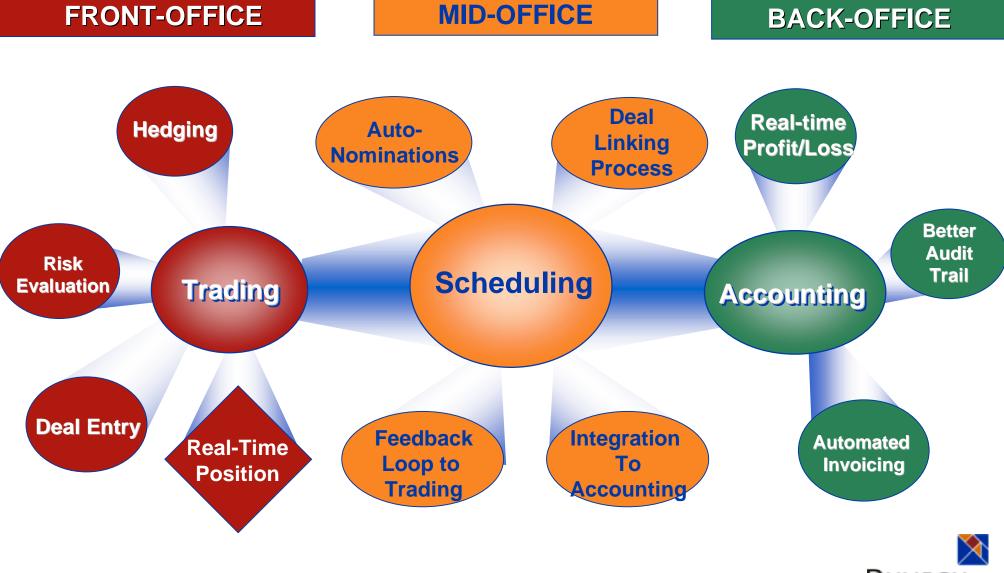




#### **DEVELOPMENT OF TRANSACTIONAL PLATFORMS**



#### **TECHNOLOGY INTEGRATION OF DISTRIBUTION COMPANIES**



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#### PRODUCT EVOLUTION

## The Natural Gas Product Timeline

Pre 1984-Long-term Contracting with Take or Pay



Mid 1980 to Mid 1990-Long-term Contracting Mid-term Contracting Monthly Trading



Mid 1990 to Today-Long-term Contracting Mid-term Contracting Monthly Trading Daily Trading Risk Management Activities





Volume Management

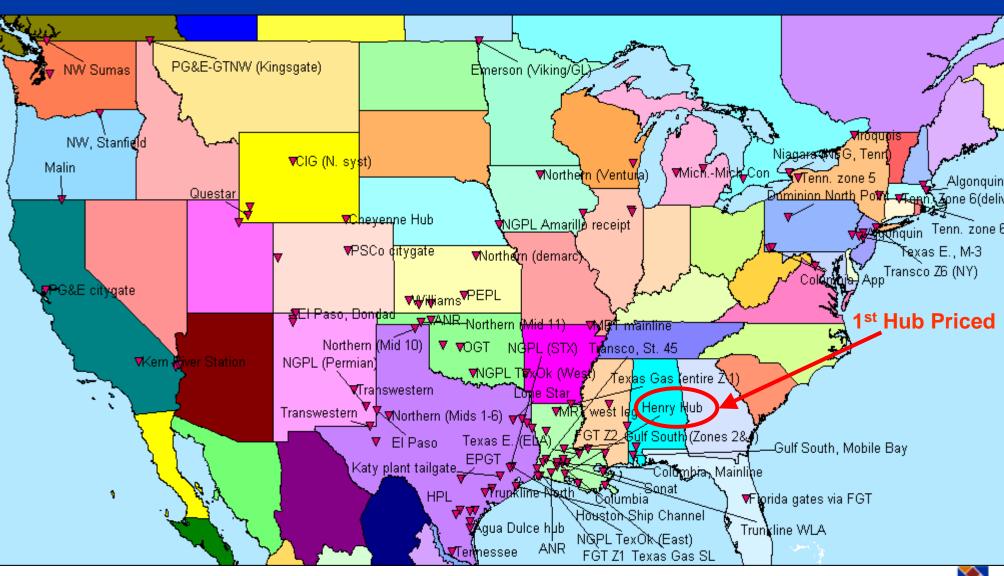
Volume & Price Management



**Greater Volume, Price** and Risk Management



#### IMPROVED LIQUIDTY FOR CONSUMER DRIVEN PRODUCTS





#### SUMMARY

- Natural Gas Market Fundamentals are Creating Opportunities for New Technology
- Recent Innovations are Directed at Efficiency Gains in the Natural Gas Chain-- from Production Activities to the ways in which Natural Gas is Consumed
- Even the Manner in which Natural Gas is Distributed has Changed in Response to Market Signals
- Electronic Trading Floors and Front to Back Automation are only the Beginning of Innovation for the Natural Gas Distribution Channel

